



DE-FOA-0002335 – SHARKS SBIR/STTR

Questions can be sent to ARPA-E-CO@hq.doe.gov

DEADLINE FOR QUESTIONS TO ARPA-E-CO@HQ.DOE.GOV:
5 PM ET, FRIDAY MAY 15, 2020

QUESTIONS AND ANSWERS

PLEASE REFER TO THE GENERAL FAQS SECTION OF ARPA-E'S WEBSITE ([HTTP://arpa-e.energy.gov/?q=faq/general-questions](http://arpa-e.energy.gov/?q=faq/general-questions)) FOR ANSWERS TO MANY GENERAL QUESTIONS ABOUT ARPA-E AND ARPA-E'S FUNDING OPPORTUNITY ANNOUNCEMENTS. ADDITIONAL QUESTIONS SPECIFIC TO THIS FOA ONLY ARE INCLUDED BELOW. PLEASE REVIEW ALL EXISTING GENERAL FAQS AND FOA-SPECIFIC QUESTIONS BEFORE SUBMITTING NEW QUESTIONS TO ARPA-E.

I. Concept Paper Phase Questions:

Q1. [FOA Section] I.G Proof of Concept Experiments: According to the FOA, TEAMER may offer a series of open Requests for Technical Support (RFTS's) starting in mid-2020. Should applicants include costs for concept experiments (such as tank tests) or should applicants only indicate the number and type of tests to be completed in hopes that TEAMER RFTS will become available?

ANSWER: Costs for concept experiments (such as tank tests) should be included in the project. The SHARKS Program is expecting the teams to validate experimentally the main new concepts proposed in the projects.

Q2. [FOA Section] I.G Proof of Concept Experiments: Are applicants required to submit a quote for testing at TEAMER or equivalent facilities with the full application?

ANSWER: Not at the Concept Paper phase of the solicitation. Instructions for supporting a proposed project budget will be provided following disposition of Concept Papers with a FOA modification setting forth the requirements for preparing and submitting a Full Application.

Q3. We would like to use our foreign subsidiaries on this project. Must all work be performed in the US, unless we ask for a waiver?

ANSWER: As set forth in Footnote 37 (p.35), prospective applicants seeking to perform any project work outside the United States must apply for and receive a foreign work waiver from ARPA-E. Waivers may be requested by completing the pertinent section of the Business Assurances and Disclosures Form, submitted with the Full Application.

Q4. On page 79, under "Title to Subject Inventions" [FOA Section VIII.A], the third bullet is:

Class Waiver: Under 42 U.S.C. § 5908, title to subject inventions vests in the U.S. Government and large businesses and foreign entities do not have the automatic right to elect to retain title to subject inventions. However, ARPA-E typically issues "class patent waivers" under which large businesses and foreign entities that meet certain stated requirements, such as cost sharing of at least 20%, may elect to retain title to their subject inventions. If a large business or foreign entity elects to retain title to its subject invention, it must file a patent application in a timely fashion. If the class waiver does not apply, a party may request a waiver in accordance with 10 C.F.R. §784.

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In a situation where there is zero cost share being provided by a large business: (i) Is a Class Waiver a possibility; (ii) If not is an Advance Patent Waiver a possibility; (iii) If not, would an Identified Patent Waiver be a possibility?

ANSWER: ARPA-E will not pre-assess an applicant's proposal. As set forth at FOA Section VIII.A, ownership of subject inventions under ARPA-E funding agreements is governed by the Bayh-Dole Act (35 U.S.C. § 200 et seq) for domestic small businesses, educational institutions, and non-profit institutions. The Federal Non Nuclear Energy Act of 1974, 42 U.S.C. § 5908 applies to all other government transactions at any tier for the performance of R&D. That Act provides that the Government obtains title to new inventions unless a waiver is granted. ARPA-E has issued "class patent waivers" under which all those not subject to the Bayh-Dole Act, such as large businesses and foreign entities, that meet certain stated requirements, such as cost sharing of at least 20%, may elect to retain title to their subject inventions. The applicable class patent waiver can be found at <https://arpa-e.energy.gov/?q=site-page/project-management-reporting-requirements>. If the class waiver does not apply, a party may still request a waiver in advance of contracting or a waiver to an identified invention in accordance with 10 C.F.R. § 784.

Q5. TT&O is mentioned in the SBIR Solicitation, but no percentage seems to be identified. Should we be assuming that a TT&O activity is required for >5% of the total budget?

ANSWER: Refer to ARPA-E Form 110, "Budget Justification Guidance," Step 9, available at <https://arpa-e-foa.energy.gov/#Foald8ecb7f37-e03a-4562-b9cd-09550ee5ea54>. Every Project Team is required to spend at least 5% of ARPA-E provided funding on TT&O activities to promote and further the development and deployment of ARPA-E-funded technologies.

II. Full Application Phase Questions:

Q6. I have a couple of questions regarding ice conditions.

Q6.1 FOA-0002336_Mod_01 Task T0b.3 states that the system proposed should "...resist or avoid ice riverbed scouring." Can ARPA provide more quantitative information about the magnitude or incidence of ice riverbed scouring?

ANSWER: The FOA does not specify quantitative information about ice scouring.

Q6.2 As part of concept review, comments included that "...icy conditions may adversely affect support structure." Can ARPA clarify if icy conditions mean ice accumulation on the structure or ice impacting the floating structure, and can ARPA then quantify the design requirements for such icy conditions?

ANSWER: Designs that are resilient to both ice accumulation or ice impacts are of interest to ARPA-E. Applicants may propose systems that address either or both of these concerns. The FOA does not specify quantitative design requirements for either condition.

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Q7.1 According to the FOA, the system must be micro-grid ready. Can the power conversion equipment be located on shore in way of the shore grid connection?

ANSWER: The conversion equipment may be located on shore; however, this equipment must still be included in the proposed design and metric space analysis.

Q7.2 Is data available about the range of current speeds and profiles at the sites indicated in the FOA?

ANSWER: The distributions of current velocities are included in the metric space workbooks.

Q7.3 Is data available about the wave environment (significant height, spectrum) at the sites indicated in the FOA?

ANSWER: Wave data is not available for the sites described in the FOA.

Q7.4 Is data available about the bottom soil conditions at the sites?

ANSWER: Bottom soil condition data is not available for the sites described in the FOA.

Q7.5 Is data available about ice thickness and duration for the sites in Alaska that are affected by ice conditions?

ANSWER: Ice condition data is not available for the sites described in the FOA.

Q8. With respect to the program costs proposed in our concept paper, I have several questions regarding the full proposal:

Q8.1 May we modify the proposed dollar amount to accommodate new costs and scope developed since submitting the concept paper?

ANSWER: Refer to General FAQ 7.13.

Q8.2 If so, is there some % modification that would be considered allowable?

ANSWER: There are no guidelines; however, the purpose of seeking and evaluating Concept Papers is to provide early feedback on whether an idea is likely to form the basis of a successful full application. Substantive revisions of the anticipated research program at the Full Application stage could have the effect of diminishing the benefits of the Concept Paper review.

Q8.3 May we add new team members?

ANSWER: Refer to General FAQ 7.14.

Q8.4 May we reallocate funding between team members and modify the % allocations?

ANSWER: Yes.

Q9.1 We submitted concept papers to both the SBIR and non-SBIR FOAs. We were encouraged to submit full applications to both concept papers, but the response on one of the papers was to make significant changes to the concept. In order to address the reviewer's questions, we will need to make significant changes to our approach,



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including proposed teammates. Are there any issues with making significant changes, including changing team partners, to our full application compared to our concept paper?

ANSWER: Refer to SHARKS SBIR/STTR FAQ 8.

Q9.2 We also noted the following [at Section III.F.4]:

However, small businesses that qualify as a “Small Business Concern” may apply to only one of the two ARPA-E SHARKS FOAs: ARPA-E FOA DE-FOA-0002335 (SBIR/STTR), Submarine Hydrokinetic And Riverine Kilo-Megawatt Systems (SHARKS) (SBIR/STTR), or ARPA-E FOA DEFOA-0002334, Submarine Hydrokinetic And Riverine Kilo-Megawatt Systems (SHARKS). Small businesses that qualify as “Small Business Concerns” are strongly encouraged to apply under the former (SBIR/STTR FOA). To determine eligibility as a “Small Business Concern” under DE-FOA-0002335, please review the eligibility requirements in Sections III.A – III.D above.

Does the above only apply to submitting the same concept to both FOAs? In other words, are we allowed to submit two distinctly different applications in response to both the SBIR and non-SBIR FOAs?

ANSWER: Yes, provided that a compliant and responsive Concept Paper has been submitted to each FOA.